

## ABSTRACT

An RF treatment apparatus includes a catheter with a catheter lumen. A removable needle electrode is positioned in the catheter lumen in a fixed relationship to the catheter. The needle electrode includes a needle lumen and a needle electrode distal end. A removable introducer is slidably positioned in the needle lumen. The introducer includes an introducer distal end. A first sensor is positioned on a surface of the needle electrode or the insulator. An RF power source is coupled to the needle electrode and a return electrode. An insulator sleeve is slidably positioned around the electrode and includes a second sensor. Resources are associated with the electrodes, sensors as well as the RF power source for maintaining a selected power at the electrode independent of changes in current or voltage.